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Mineral Depletion Allowances and U.S. Import Dependence

By Phillip N. Yasnowsky and Annette P. Graham

UNITED STATES DEPARTMENT OF THE INTERIOR

United States. Bureau of Mines. Information Circular, 8824

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MINERAL DEPLETION ALLOWANCES AND U.S. IMPORT DEPENDENCE

by

Phillip N. Yasnowsky[1] and Annette P. Graham[1]

ABSTRACT

This Bureau of Mines report examines the percentage depletion allowance rate structure in relation to several criteria that are indicative of U.S. mineral import dependence. These criteria are the minerals considered as strategic and critical for stockpiling purposes, the ratio of reserves to forecast cumulative demand (1976-2000) for selected minerals, and the U.S. net import reliance as a percentage of apparent consumption (1978), also for selected minerals. In general, it was found that there does exist a direct, although not perfect, relationship between the percentage depletion allowance rates and the degree of import dependence as indicated by these three criteria. The higher percentage rates tend to be associated with those minerals for which the United States is, or will likely be, heavily dependent on foreign sources.

In addition, a basic discussion of the mineral depletion allowance is provided, including numerical examples illustrating the computation of the allowance under several assumptions. Also, the percentage depletion allowance rates for individual minerals are tabulated.

INTRODUCTION

This paper has been prepared to provide basic information on the mineral (nonfuel) depletion allowance provided in the Internal Revenue Code of 1954 (Title 26 of the U.S. Code). An allowance for the depletion of natural resources is available for timber and minerals. The cost depletion allowance applies both to minerals and timber; the percentage depletion allowance is an alternative specific to minerals and, thus, of interest to the Bureau of Mines. The significance of mineral import dependence is that (1) minerals are the foundation of a modern industrial society and (2) the United States is heavily dependent on foreign sources for a number of minerals.

[1]Economist, Branch of Economic Analysis, Bureau of Mines, Washington, D.C.

> The fact that the United States relies on imports for a substantial portion of its mineral requirements should not in itself be alarming; however, problems arise when the interests of foreign suppliers conflict with the United States national security or economic interests.[2]

A recent study by the Congressional Research Service listed a number of arguments for and against percentage depletion.[3] Indeed, most references on the depletion allowance are either of a supportive or a critical nature. A brief history of the depletion allowance is provided for background information.

BACKGROUND

The mineral depletion allowance is a provision of the Internal Revenue Code of 1954, sections 611-613, that allows mineral producers a deduction in computing taxable income for the exhaustion of an asset in the form of a mineral deposit. The concept of depletion (in particular cost depletion) for minerals is similar to the depreciation of other assets.

An allowance for depletion was made part of the tax law in 1913 along with the enactment of the Federal income tax, following passage of the Sixteenth Amendment to the Constitution, which authorized such a tax. The corporation excise tax law of 1909 did not contain any provision for the depletion of mineral deposits. Discovery value depletion, which was based on the fair market value of the property at the time of discovery or within 30 days, was first introduced in 1918. Due to the difficulties in administering discovery value depletion, a depletion deduction based on a specified percentage of income, or percentage depletion, was provided for oil and gas in 1926. In 1932, percentage depletion was extended to cover metals, sulfur, and coal. The list of minerals allowed the percentage depletion provision was extended during subsequent years.[4] The Internal Revenue Code of 1954 now lists many minerals specifically but also contains a category of "all other minerals." Specifically excluded are "soil, sod, dirt, turf, water, or mosses" and "minerals from sea water, the air, or similar inexhaustible sources" [Internal Revenue Code of 1954, section 613 (b)(7)]. The applicable rates, ranging from 5 to 22 percent, are also specifically listed in the Code.

It should be noted that the form of a material that is listed in the various tables of this report may differ from the form at which processing stage the percentage depletion allowance is applicable. For example, antimony and zinc are listed in the tables, but the Internal Revenue Code of 1954 [section 613 (b)] refers to "...ores of the following metals: antimony...,

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[2]U.S. Bureau of Mines. Status of the Mineral Industries. December 1978, p. 13.

[3]Tannenwald, Robert. Analysis and Evaluation of Arguments for and Against Percentage Depletion. Congressional Research Service, Library of Congress, Mar. 22, 1978, 60 pp.

[4]Gravelle, Jane. Percentage Depletion on Hard Minerals. Congressional Research Service, Library of Congress, Apr. 7, 1975, 23 pp.

Staff, Joint Committee on Internal Revenue Taxation. Legislative History of Depletion Allowances. Prepared for use of the Committee on Ways and Means. March 1950, 36 pp.

and zinc" as being authorized the 22 percent rate for domestic production. The law also states that the "term 'mining' includes not merely the extraction of the ores or minerals from the ground but also" certain described treatment processes. Other processes described in the Internal Revenue Code are not considered "mining" for purposes of computing the percentage depletion deduction. In addition, "mining" can include "any other treatment process provided for by regulations prescribed by the Secretary" of the Treasury which is not inconsistent with the specific provisions of the law. The processes presently recognized are listed in the income tax regulations.

PERCENTAGE DEPLETION ALLOWANCE RATE STRUCTURE

In this report, the "rationality" of the percentage depletion allowance rate structure is briefly examined in relation to three criteria which are indicative of U.S. mineral import dependence. First, the percentage depletion rates are related to the mineral commodities considered to be strategic and critical for stockpiling purposes. Second, the percentage rates are related to data indicating to what degree current U.S. reserves could satisfy projected U.S. demand for the rest of the century. The figures indicating this are the ratio of reserves (1976) to forecast cumulative demand, 1976-2000, for individual minerals. Third, the percentage depletion allowance rates are related to data showing the 1978 U.S. net import reliance as a percentage of apparent consumption for various mineral commodities. There is some duplication of material in the sections dealing with the latter two criteria. This is done with the view that each individual section is of sufficient importance to be a coherent whole by itself.

It might be noted that the establishment of the percentage depletion allowance rates was not necessarily done on the basis of import dependence. Research into Congressional intent in establishing the rates was not undertaken as part of this effort. In any event, it is not likely that a single criterion, such as import dependence, would dictate the rate structure. However, mineral import dependence is surely a sufficiently important criterion against which to judge, at least partially, the "rationality" of the percentage depletion allowance rate structure.

Strategic and Critical Stockpile Materials

Table 1 shows the percentage depletion allowance rates applicable to the domestic production of mineral commodities designated as strategic and critical for Government stockpiling purposes. The designation of a material as strategic and critical does not necessarily mean that the material is actually held in the stockpile. The inventory of a material at any given time may be zero either because the goal is zero or, if not, because the goal has yet to be fulfilled. There are 93 basic stockpile materials, of which 79 are mineral products. Materials can be held in a variety of forms; for example, aluminum, alumina, and bauxite are all stockpile materials. Therefore, the 79 mineral commodities have been reduced to 33 for this table, the purpose of which is to show the percentage depletion allowance rate applicable to some form of the basic stockpile materials. Of these 33 mineral products, the percentage depletion allowance for domestic production is 22 percent for 27, 15 percent for two, and 14 percent for the remaining four.

TABLE 1. - Percentage depletion allowance rates applicable to domestic production of minerals designated as strategic and critical for stockpiling purposes[1]

Mineral commodity	Percentage depletion allowance	Mineral commodity	Percentage depletion allowance
Aluminum	22	Mica	22
Antimony	22	Molybdenum	22
Asbestos	22	Nickel	22
Beryllium	22	Platinum-group metals	22
Bismuth	22	Quartz crystals	22
Cadmium	22	Sapphire and ruby	14
Chromium	22	Silicon	14
Cobalt	22	Silver	15
Columbium	22	Talc, block steatite	22
Copper	15	Tantalum	22
Diamond	14	Thorium	22
Fluorspar	22	Tin	22
Graphite	22	Titanium	22
Iodine	14	Tungsten	22
Lead	22	Vanadium	22
Manganese	22	Zinc	22
Mercury	22		

[1]There are 93 basic stockpile materials of which 79 are minerals or mineral products. Materials are often held in a variety of forms; for example, aluminum, alumina, and bauxite are all stockpile materials. This table is simplified in that where appropriate, the various stockpile forms are combined under the heading of one commodity, in this case, aluminum. The form which is listed here may differ from the form at which processing stage the percentage depletion allowance is applicable.

Sources: U.S. Bureau of Mines. Mineral Commodity Summaries. 1979.
Federal Preparedness Agency, U.S. General Services Administration. Stockpile Report to the Congress, April 1978-September 1978. April 1979.
Prentice-Hall, Inc. Federal Tax Guide, Code Volume, Internal Revenue Code of 1954. 1977 with updated supplements.

The purpose of the strategic and critical materials stockpile is "to protect the Nation against a dangerous and costly dependence upon foreign sources of supply in time of national emergency."[5] Therefore, it would be reasonable to find the higher percentage depletion rates associated with the minerals designated as strategic and critical. In fact, this is the case. The highest percentage depletion rate of 22 percent applies to the domestic production of 82 percent of the basic stockpile materials of mineral origin. Thus, the conclusion is that the percentage depletion allowance rate structure conforms reasonably well to expectations in this instance.

Reserves to Cumulative Demand Ratio

The Bureau of Mines publication "Mineral Trends and Forecasts" includes data showing the ratio of recoverable reserves, 1976, to cumulative demand, 1976-2000, for individual metals and mineral forming elements and nonmetallic minerals. Table 2 lists this ratio and the percentage depletion allowance rate for those items to which the percentage depletion allowance is applicable at some processing stage. Several other commodities included in "Mineral Trends and Forecasts" are not included in table 2 because several percentage depletion allowance rates are applicable to each of the items as they are categorized. Also, arsenic and kyanite are omitted from table 2 because a reserve to cumulative demand ratio is not available due to the withholding of individual company data. Finally, it should be noted once again that the commodity listed does not necessarily conform to the one at which processing stage the percentage depletion allowance is applicable.

[5]Federal Preparedness Agency, U.S. General Services Administration. Stockpile Report to the Congress, April 1978-September 1978. April 1979, p. 1.

TABLE 2. - Ratio of U.S. recoverable reserves (1976) to U.S. cumulative demand, 1976-2000, and percentage depletion allowance rate, selected minerals[1] [2]

Commodity	Ratio of recoverable reserves, 1976, to cumulative demand, 1976-2000	Percentage depletion allowance (domestic production)	Commodity	Ratio of recoverable reserves, 1976, to cumulative demand, 1976-2000	Percentage depletion allowance (domestic production)
Aluminum....	<0.1	22	Molybdenum..	2.9	22
Antimony....	.1	22	Nickel.....	<.1	22
Asbestos....	.2	22	Palladium...	0	22
Barite.....	1.3	14	Peat.....	>10	5
Beryllium...	3.1	22	Perlite.....	9	10
Bismuth.....	.3	22	Phosphate rock.....	3.6	14
Boron.....	4.4	14	Platinum....	0	22
Bromine.....	>10	5	Potash.....	.9	14
Cadmium.....	1.0	22	Pumice.....	7.4	5
Cesium.....	0	14	Rhenium.....	>10	14
Chromium....	<.1	22	Rhodium.....	0	22
Cobalt.....	0	22	Rubidium....	0	14
Columbium...	0	22	Salt.....	A	10
Copper.....	1.5	15	Sand and gravel.....	A	[3]5
Corundum....	0	22	Selenium....	1.9	14
Diatomite...	>10	14	Silicon.....	>10	14
Feldspar....	>10	14	Silver.....	.4	15
Fluorine....	.1	22	Soda ash....	>10	14
Garnet.....	1.1	14	Strontium...	0	22
Germanium...	.6	14	Sulfur.....	.5	22
Gold.....	.6	15	Talc.....	4.3	[4]14
Graphite....	0	22	Tantalum....	0	22
Gypsum.....	.8	14	Tellurium...	1.9	14
Hafnium.....	>10	22	Thallium....	4.9	14
Indium.....	.4	14	Thorium.....	>10	22
Iodine.....	1.8	14	Tin.....	.1	22
Iron in ore.	1.5	15	Titanium....	1.4	22
Lead.....	1.0	22	Tungsten....	.4	22
Lime.....	A	14	Vanadium....	.2	22
Lithium.....	2.8	22	Vermiculite.	10.0	14
Manganese...	0	22	Zinc.....	.6	22
Mercury.....	.3	22	Zirconium...	2.0	22
Mica, scrap and flake..	>10	22			
Mica, sheet.	0	22			

< Denotes less than. > Denotes greater than. A Adequate.

[1]The form of material which is listed here may differ from the form at which processing stage the percentage depletion allowance is applicable.

[2]Arsenic and kyanite are omitted because the demand data are withheld to avoid disclosing individual company data. Clays, magnesium, rare-earth minerals and yttrium, and stone are omitted because several percentage depletion allowance rates are applicable to each of these categories.

[3]Common varieties.

[4]Excluding block steatite.

Sources: U.S. Bureau of Mines. Mineral Commodity Summaries. 1979.
U.S. Bureau of Mines. Mineral Trends and Forecasts. 1979.
Prentice-Hall, Inc. Federal Tax Guide, Code Volume, Internal Revenue Code of 1954. 1977 with updated supplements.

The data in table 2 have been used to prepare the following frequency distribution relating the various percentage depletion allowance rates to ranges of the reserves to cumulative demand ratios. The numbers in the matrix are the number of mineral commodities in each category.

Reserves to cumulative demand ratio	Percentage depletion allowance rate						
	5	7.5	10	14	15	22	Total
0.....	0	0	0	2	0	11	13
>0- 2.....	0	0	0	9	4	17	30
>2- 4.....	0	0	0	1	0	3	4
>4- 6.....	0	0	0	3	0	0	3
>6- 8.....	1	0	0	0	0	0	1
>8-10.....	0	0	1	1	0	0	2
>10 or adequate	3	0	1	6	0	3	13
Total.....	4	0	2	22	4	34	66

> Denotes greater than.

The reserves (1976) to forecast cumulative demand (1976-2000) ratio provides an indication of the degree of mineral import dependence for individual commodities that can be expected during the rest of the century. If the rate structure were based on the reserves to cumulative demand ratio, the higher rates of percentage depletion would correspond to the lower ratios and vice versa. As shown by the data, the correspondence is not perfect, but there is a tendency for the data to conform to such a relationship. The greatest variability is in the 14 percent percentage depletion allowance rate category, which can be explained by the fact that this is the rate applicable to "all other minerals."

Net Import Reliance as a Percentage of Apparent Consumption

The basic data for examining the third criterion, net import reliance[6] as a percentage of apparent consumption, of a "rational" percentage depletion allowance rate structure are shown in table 3. Some commodities are not included in table 3 because several percentage depletion allowance rates are applicable to each commodity as they are categorized in the original source of the net import reliance data, "Mineral Commodity Summaries." Furthermore, some other commodities are omitted because the data are withheld to avoid disclosing individual company data. Also, the commodity listed does not necessarily conform to the one at which processing stage the percentage depletion allowance is applicable.

[6]Net import reliance = imports - exports + adjustments for government and industry stock changes.

TABLE 3. - U.S. net import reliance as a percentage of apparent consumption, 1978, and percentage depletion allowance rate, selected minerals[1] [2]

Commodity	Net import reliance as a percentage of apparent consumption	Percentage depletion allowance (domestic production)	Commodity	Net import reliance as a percentage of apparent consumption	Percentage depletion allowance (domestic production)
Antimony.....	48	22	Mica, sheet...	100	22
Asbestos.....	84	22	Mica, scrap and flake....	E	22
Barite.....	40	14	Molybdenum....	E	22
Bauxite and alumina.....	93	22	Nickel.....	77	22
Boron.....	E	14	Peat.....	32	5
Bromine.....	E	5	Phosphate rock	E	14
Cadmium.....	66	22	Platinum-group metals.....	91	22
Cesium.....	100	14	Potash.....	61	14
Chromium.....	92	22	Pumice and volcanic cinder.....	5	5
Cobalt.....	97	22	Salt.....	9	10
Columbium.....	100	22	Sand and gravel.....	E	5
Copper.....	19	15	Selenium.....	61	14
Corundum.....	100	22	Silicon.....	18	14
Diamond, industrial...	100	14	Silver.....	41	15
Diatomite.....	E	14	Sodium carbonate....	E	14
Feldspar.....	E	14	Sodium sulfate	3	14
Fluorspar.....	82	22	Strontium.....	100	22
Gem stones....	99	14	Sulfur.....	10	22
Germanium.....	12	14	Tantalum.....	97	22
Gold.....	54	15	Thallium.....	20	14
Gypsum.....	34	14	Tin.....	81	22
Ilmenite.....	39	22	Tungsten.....	50	22
Iron ore.....	29	15	Vanadium.....	27	22
Kyanite and related minerals.....	E	22	Vermiculite, crude.....	E	14
Lead.....	11	22	Zinc.....	62	22
Lime.....	2	14			
Lithium.....	E	22			
Manganese.....	98	22			
Mercury.....	57	22			

E Denotes net exports.

[1]The form of material which is listed here may differ from the form at which processing stage the percentage depletion allowance is applicable.

[2]Some mineral commodities, for example, arsenic and graphite, are omitted because the data are withheld to avoid disclosing individual company data. Also, several mineral commodities, for example, clays and magnesium, are omitted because several percentage depletion allowance rates are applicable to each category (see table 5).

Sources: U.S. Bureau of Mines. Mineral Commodity Summaries. 1979.
Prentice-Hall, Inc. Federal Tax Guide, Code Volume, Internal Revenue Code of 1954. 1977 with updated supplements.

The following frequency distribution relating net import reliance to the various percentage depletion rates has been prepared from table 3. The numbers in the matrix refer to the number of mineral commodities in each category.

Net import reliance as a percentage of apparent consumption	Percentage depletion allowance rate						
	5	7.5	10	14	15	22	Total
>75-100.....	0	0	0	3	0	14	17
>50- 75.....	0	0	0	2	1	3	6
>25- 50.....	1	0	0	2	2	4	9
>0- 25.....	1	0	1	5	1	2	10
Net exports.....	2	0	0	6	0	4	12
Total.....	4	0	1	18	4	27	54

> Denotes greater than.

Once again, the data do not indicate a perfect relationship between the import dependence criterion and the percentage depletion allowance rates, but there is a tendency for the higher percentage rates to be associated with a higher degree of import reliance. For example, for 17 of the 27 mineral commodities receiving the 22 percent depletion allowance rate, the United States is dependent on foreign sources for more than 50 percent of its consumption. Alternatively, 15 of the 22 mineral commodities for which the United States is 25 percent or less dependent on foreign sources are entitled to an allowance of 14 percent or less.

Conclusion

The percentage depletion allowance rate structure has been examined in relation to three criteria that are indicative of U.S. mineral import dependence. It might be noted that these relationships are put forth for informational purposes only. It is not likely that any single criterion can be the basis for a "rational" rate structure for the depletion allowance.

The data in this paper show that there does exist some correspondence between each of the three criteria and the depletion allowance rates. The percentage depletion allowance rate structure, to a certain extent then, is consistent with the goal of a secure mineral supply position. Thus, the basic conclusion is that there is a degree of "rationality" in the percentage depletion allowance rate structure when viewed from the perspective of import dependence.

HYPOTHETICAL ILLUSTRATION OF THE MINERAL DEPLETION ALLOWANCE

There are currently two methods of depletion computation authorized by Federal tax law: cost depletion and percentage depletion. The taxpayer is required to use the method of computation that results in the greater allowance. Table 4 provides a simplified arithmetical illustration of how the depletion allowance works under certain assumptions. It is emphasized that this table is for illustrative purposes only and cannot be used to assess impacts or the importance of the tax law provisions or changes in these provisions. The caveat is offered mainly for two reasons in addition to the arbitrary use of numbers in the examples. First, the alternative tax strategies available to the taxpayer are not considered. Second, the financial circumstances of individual taxpayers or even groups of taxpayers are likely to differ.

TABLE 4. - Hypothetical illustration of the use of the mineral depletion allowance[1]

(Thousand dollars)

	Assume full percentage depletion deduction of 15 percent of gross income (1)	Assume no depletion deduction (2)	Assume cost depletion deduction (3)	Assume percentage depletion deduction is limited due to 50 percent of net income limitation[2] (4)	Assume net income before taxes and depletion = 0[2] (5)
Gross income from mining.....	15,000	15,000	15,000	15,000	15,000
Operating costs.....	6,650	6,650	6,650	10,000	13,000
Net operating income	8,350	8,350	8,350	5,000	2,000
Depreciation (fixed charges).....	2,000	2,000	2,000	2,000	2,000
Net income before taxes and depletion	6,350	6,350	6,350	3,000	0
Depletion[3].....	2,250	0	390	1,500	0
Pretax net income....	4,100	6,350	5,960	1,500	0
Taxes (50 percent)[4]..	2,050	3,175	2,980	750	0
Net profit.....	2,050	3,175	2,980	750	0
Plus depletion.....	2,250	0	390	1,500	0
Plus depreciation..	2,000	2,000	2,000	2,000	2,000
Cash flow.....	6,300	5,175	5,370	4,250	2,000

[1]Data taken or modified from Thomas J. O'Neil: The Minerals Depletion Allowance: Its Importance in Nonferrous Metal Mining. Mining Engineering, October 1974, pp. 61-64.

[2]Operating costs arbitrarily increased to reduce net income for this example.

[3]Percentage depletion: 15 percent of gross income subject to a limitation of 50 percent of net income before taxes and depletion.

Cost depletion: Purchase price (includes all capitalized expenditures) = $3.2 million.
Estimated ore reserves on date of purchase = 15.5 million tons.
Sales during year = 1.9 million tons.

$$\text{Cost depletion per ton} = \frac{\text{Purchase price}}{\text{reserves}} = \frac{\$3.2 \text{ million}}{15.5 \text{ million tons}} = \$0.206.$$

Annual cost depletion deduction = tons sold X per ton rate = 1.9 million tons X $0.206 = $391,000, or rounded to $390,000.

[4]Assumed to be 50 percent to simplify computation.

Cost depletion, which is based on actual cost, is the method of depletion that is most clearly comparable with depreciation. The annual deduction for cost depletion is computed by dividing the cost basis (as adjusted) by the estimated reserves and then multiplying this figure by the annual sales. This deduction continues until the cost basis is reduced to zero.

The percentage depletion allowance allows mineral producers to deduct a certain percentage, between 5 and 22 percent depending on the mineral and location (domestic or foreign), of the value of mineral production in computing taxable income from a mineral property. The deduction is subject to a limitation of 50 percent of taxable income, computed without consideration of the depletion allowance. The significance of percentage depletion is that the deduction is based on production and does not necessarily bear any relationship to the amount invested.

Column 1 of table 4 shows the operation of percentage depletion when a full deduction of 15 percent of gross income is taken. The 15 percent rate is the rate applicable to the domestic production of copper, gold, iron ore, and silver. The data in this column are taken directly from O'Neil's article[7] which deals with copper.

Column 2 calculations are made under the assumption that the deduction for depletion is eliminated. The data from column 1 are used with this exception.

Column 3 uses the same data as columns 1 and 2, except that a deduction for cost depletion is incorporated into the calculations. The cost depletion deduction is obtained as follows:

Cost depletion: Purchase price (includes all capitalized expenditures) = $3.2 million.

Estimated ore reserves on date of purchase = 15.5 million tons.

Sales during year = 1.9 million tons.

$$\text{Cost depletion per ton} = \frac{\text{purchase price}}{\text{reserves}} = \frac{\$3.2 \text{ million}}{15.5 \text{ million tons}} = \$0.206.$$

Annual cost depletion deduction = tons sold X per ton rate = 1.9 million tons X $0.206 = $391,000, or rounded to $390,000.

The cost depletion deduction for the following year would be obtained using the adjusted cost basis figure of $2.8 million ($3.2 million minus $390,000) and the adjusted reserve figure of 13.6 million tons (15.5 million tons minus 1.9 million tons). The per ton cost depletion figure would be

$$\frac{\$2.8 \text{ million}}{13.6 \text{ million tons}} = \$0.206,$$

[7]O'Neil, Thomas J. The Minerals Depletion Allowance: It's Importance in Nonferrous Metal Mining. Mining Engineering, October 1974, pp. 61-64.

which is the same figure as for the first year because both the cost basis and the reserve figure have been adjusted only due to the previous year's depletion deduction and sales, respectively. The cost depletion per unit figure would change if, for example, a new reserve estimate became available or the cost basis were adjusted for some reason other than the depletion deduction, such as a capitalized expenditure.

Column 4 shows how the 50 percent of taxable income limitation works. The operating cost figure was arbitrarily increased to $10 million to reduce net income before taxes and depletion. The depletion deduction is thus $1.5 million (50 percent of net income of $3 million) instead of the $2.25 million allowed under the conditions assumed in column 1.

The figures in column 5 show the situation when the net income before taxes and depletion is reduced to zero. The operating cost figure was arbitrarily increased to $13 million to achieve this net income figure.

PERCENTAGE DEPLETION ALLOWANCE RATES

Table 5 shows the percentage depletion allowance rates applicable to specific mineral commodities (excluding fuels) for domestic and foreign production. The mineral commodity listing basically follows that found in the Bureau of Mines annual "Mineral Commodity Summaries." Several important mineral commodities, such as aluminum, cement, and lime, are not included in table 5, but the raw materials from which they are made are listed.

The percentage depletion allowance rates range from 5 to 22 percent, depending on the commodity and location (domestic or foreign). Some mineral commodities have more than one applicable rate depending on the specific form or use of the material. For example, clay for drainage and roofing tile has a rate of 5 percent, and clay for alumina is given a rate of 22 percent. The percentage rates for foreign production are generally lower than those applicable to domestic production. A tabulation of the number of commodities at each rate for domestic and foreign production follows.

Rate, percent	Frequency	
	Domestic	Foreign
5.....	8	8
7.5.....	1	1
10.....	3	4
14.....	30	71
15.....	4	0
22.....	39	1
Total....	85	85

TABLE 5. - Percentage depletion allowance rates for mineral commodities (excluding fuels)[1]

Mineral commodity	Percentage rate		Mineral commodity	Percentage rate	
	Domestic	Foreign		Domestic	Foreign
Antimony	22	14	Manganese	22	14
Arsenic	14	14	Mercury	22	14
Asbestos	22	10	Mica:		
Barite	14	14	Scrap and flake	22	14
Bauxite	22	14	Sheet	22	14
Beryllium	22	14	Molybdenum	22	14
Bismuth	22	14	Nickel	22	14
Boron (borax)	14	14	Peat	5	5
Bromine (brine wells)	5	5	Perlite	10	10
Cadmium	22	14	Phosphate rock	14	14
Cesium	14	14	Platinum-group metals	22	14
Chromium	22	14	Potash	14	14
Clays:			Pumice	5	5
Kaolin, ball clay, bentonite, fuller's earth, and fire clay	14	14	Quartz crystal, electronic grade	22	14
Clay and shale for sewer pipe or brick, and lightweight aggregates	7.5	7.5	Rare-earth minerals and yttrium:		
Clay for alumina or aluminum compounds	22	14	Monazite	22	14
Clay for drainage and roofing tile, etc	5	5	Other	14	14
Cobalt	22	14	Rhenium	14	14
Columbium	22	14	Rubidium	14	14
Copper	15	14	Rutile	22	14
Corundum	22	14	Salt (sodium chloride)	10	10
Diamond (industrial)	14	14	Sand and gravel:		
Diatomite	14	14	Common varieties	5	5
Feldspar	14	14	Quartz sand or pebbles	14	14
Fluorspar	22	14	Selenium	14	14
Garnet	14	14	Silicon:		
Gem stones	14	14	Quartzite	14	14
Germanium	14	14	Gravel	5	5
Gold	15	14	Silver	15	14
Graphite	22	14	Sodium carbonate	14	14
Gypsum	14	14	Sodium sulfate	14	14
Hafnium	22	14	Stone:		
Ilmenite	22	14	For riprap, ballast, road material, etc.	5	5
Indium	14	14	Other	14	14
Iodine	14	14	Strontium	22	14
Iron ore	15	14	Sulfur	22	22
Kyanite	22	14	Talc:		
Lead	22	14	Block steatite	22	14
Lithium	22	14	Other	14	14
Magnesium and magnesium compounds:			Tantalum	22	14
Brucite	10	10	Tellurium	14	14
Dolomite and magnesium carbonate	14	14	Thallium	14	14
Magnesium chloride	5	5	Thorium	22	14
Olivine	22	14	Tin	22	14
			Tungsten	22	14
			Vanadium	22	14
			Vermiculite	14	14
			Zinc	22	14
			Zirconium	22	14

[1]The form of material which is listed here may differ from the form at which processing stage the percentage depletion allowance is applicable.

Sources: U.S. Bureau of Mines. Mineral Commodity Summaries. 1979.
Prentice-Hall, Inc. Federal Tax Guide, Code Volume, Internal Revenue Code of 1954. 1977 with updated supplements.

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